

The MIT Sloan School Executive Series on Management, Innovation and Technology



Fundamentals of Finance for the Technical Executive

What Managers Should Know About Basic
Financial Principles for Project Evaluation, Funding,
and Resource Allocation

A Two-Day Program for Senior Management



In Cambridge, Massachusetts

December 12-13, 2002

March 17-18, 2003

July 15-16, 2003



...And Dealing With the Organization's Current and Future Financial Needs

In this two-day program we'll help you understand how to:

1. Demystify financial statements

- Learn what income statements and balance sheets can tell you about how to diagnose and run your business
- Use financial data to evaluate the performance of your department, organization or division
- Forecast the probable impact of various management strategies
- Anticipate and better prepare for rapid growth
- Recognize and avoid the dangers of "growing broke" in a profitable line of business
- Better manage your organization in difficult business conditions

2. Make important funding decisions

- Draw the connection between business strategy and financial strategy
- Foresee how a competitive environment may affect and/or limit your funding choices
- Factor in the financial implications of short product life cycles and rapid innovation

- Understand how corporate financial policy can color project choice

- Choose between debt and equity

- Estimate the impact of uncertainty on funding options

3. Evaluate projects

- Identify those factors that most affect a project's value
- Model the risk of technical failure
- Quantify and measure different types of technical, financial and business risk
- Project how risk will affect your hurdle rate
- Understand your company's cost of capital and what it means for project approval
- Produce project cash flows that are more real than wishful
- Rank-order projects when funding is scarce and you only have the resources to do some of the projects
- Use realistic, financially sound arguments to sell a project to senior management

"This course teaches and reinforces knowledge that will be of use anywhere I go in my career."
Stephen P. Getty, Director, Quality Assurance/Change Control, Verio

"An excellent class for technical and R&D managers who need to evaluate project investments."
Michael Kerns, Manager, Polymer Product Development, Goodyear Chemical

"Provided good understanding of financial analysis concepts for non-financial professionals."
David Yang, President, NutriJoy, Inc.

About the Program

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One of the biggest problems facing many technical executives is their inability to understand and apply basic principles of finance and accounting to their day-to-day and longer-term management activities.

It's one thing to oversee R&D, product innovation or technological implementation. It's another to be able to persuade corporate finance to fund your projects, or to use financial tools to address senior management's concerns about risk.

In **Fundamentals of Finance for the Technical Executive**, we have designed a special two-day program to take the mystery out of finance. The program will teach you how to deal with corporate finance, how to understand how funding decisions are made and how you can influence those decisions by applying financial principles to project evaluation and resource allocation.

This is a program meant to teach technical executives how to use key financial tools to better run their organizations.

This interactive hands-on program, which includes cases and analytical exercises drawn from the MIT Sloan School MBA curriculum, is taught by Sloan Finance faculty who provide practical insights to resolving the financial problems you face in your organization every day.

1. Basic Concepts of Finance

What you need to know about fundamental concepts and basic insights of finance theory and the application of theory to real business decisions, including:

financial statement analysis – what you can and cannot learn from your company's income statement and balance sheet data, and how it applies to running your organization

financial forecasting – how pro forma forecasts can be used to project future funding requirements for your organization. What factors give rise to the need for external financing – and how to answer the question, "How much funding will I need over the next several years?"

sustainable growth – understanding the link between operating strategy and financial strategy. Why the organization may have to borrow money to support a profitable business – and how you should be prepared to explain your need for any project funding or further expansion that may require more external financing.

"Excellent program to introduce finance concepts to technical executives needing to bridge the gap between project and business objectives."

Jack Kelly, Director of Information Services, Greenstone Farm Credit Services

"The program provides concise, to-the-point explanation of valuable tools for making financial decisions."

Kirk Zeller, Consultant, Kirk Zeller Consulting

"If you've never had a course in finance, this is a very good overview of the field that makes the mechanics of finance much more accessible."

Andrew Bogan, Venture Partner, Tallwood Venture Capital

2. Acquiring New Project Funds

What you need to know about how the company raises external funds. Plus, the basics of capital structure and such classic issues facing corporate finance as:

- The optimal mix of debt and equity financing
- Which types of firms should have more debt
- Costs of financial distress, and which industry and company traits can lead to high distress costs
- How taxes affect the choice between debt and equity financing
- Setting target capital structures

3. Project Evaluation and Resource Allocation: How To Spend Money Effectively

An introduction to key methods of investment evaluation, as well as the practical implications of cost of capital, cash flow and net present value.

How you can assess which projects are more likely to create economic value for the company.

Includes the basic tools you'll need to do discounted cash flow (DCF) valuations of projects and:

- Balance competitive, market, product development and financial considerations in making project recommendations
- Communicate the value proposition of a project to senior management
- Do a reality check on your cash projections before corporate finance does it for you

*This is a program...
meant to teach technical executives how to use key
financial tools to better run their organizations.*

"Very practical course, relevant case studies, questions answered well."
Parrish Galliher, Vice President Manufacturing Development, Millennium Pharmaceuticals

"Great program for the executive non-formally trained in finance."
Jim Larwood, General Manager, Kaman Aerospace Corporation

"Excellent introduction of financial management for technology people."
Michael Rapken, Vice President Network Systems Development, Sprint

"The course demystifies the impact finance has on technical decisions."
Brian Horgan, Program Manager, United Illuminating

In-Class Casework

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"Basic Concepts of Financial Planning"

Using a case involving an organization undergoing recent rapid growth, you will examine three key questions:

1. Why might management need to borrow money to support a profitable enterprise?
2. How does the organization determine the amount of money it needs to borrow?
3. How should prospective lenders be approached?

"Funding Decisions"

When a high tech firm recognizes that cash availability is an essential component of its overall strategy and that future cash needs are very uncertain, how does it:

- Articulate and defend a target capital structure?
- Choose among various financial instruments?
- Decide what steps to take next?

"Project Evaluation and Resource Allocation"

You'll work in teams to conduct a simulated, in-depth valuation of a facility which a company is interested in purchasing. You'll tackle a wide range of issues, including:

- Projecting cash flows and discount rates
- Constructing a cost of capital that adequately factors in the risks of the acquisition
- Doing sensitivity checks on your assumptions
- Analyzing the industry's economics
- Factoring strategic considerations into your financial analysis

"Great and very relevant."

Henry Darnell, Director, Corporate Quality, Biogen

"Good balance between case studies and lecture."

Geoff Dawe, CEO, Global Communication Devices

"Very good, practical examples of project valuations."

Bret King, Director, Information Technology Operations, IDEXX Laboratories, Inc.

"I wish I had taken this program ten years ago!"

Jim Havens, Director, Information Systems, TACC

Program Faculty

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David S. Scharfstein

David S. Scharfstein is the Dai-Ichi Kangyo Bank Professor of Management and Finance at MIT's Sloan School of Management, where he teaches courses on corporate finance and venture capital in the M.B.A., Ph.D. and executive education programs.

Prior to joining the Sloan faculty in 1987, Scharfstein was an Assistant Professor of Finance at Harvard Business School. He graduated summa cum laude from Princeton, studied as a Fulbright Scholar at Oxford University, and received a Ph.D. in economics from MIT in 1986.

Professor Scharfstein is the author of numerous articles on topics in corporate finance and industrial organization, including work on financial distress, competitive pricing decisions and financial behavior, risk management, financial intermediation, corporate resource allocation, and venture capital.

He has been the recipient of an Olin Fellowship from the National Bureau of Economic Research, a Batterymarch Research Fellowship, and a Sloan Foundation Research Fellowship.

Professor Scharfstein was Editor of the *RAND Journal of Economics* and has served on the editorial boards of the *Journal of Finance* and *Economics Letters*. He is also a Research Associate of the National Bureau of Economic Research.

About the Sloan School Executive Series on Management, Innovation & Technology

The impact of technology on the corporation is being felt not only in terms of the products, processes and services companies are able to design and market, but in the way organizations are being restructured and managed.

For senior technical and corporate executives, staying abreast of the competition means staying abreast of the way technology is redefining the corporation.

This is one in a series of interactive, executive-level programs that have been designed to help both technical and non-technical management succeed in an environment of accelerating technological change.

"Should be a requirement for all technical managers. Provides insight to the other side of corporate management."

Allan Kukoski, Director, Engineering and Design, Foster Wheeler Energy Corporation

"Technical person's window into critical financial considerations that drive business decisions."

Norm Fujisaki, Deputy Director, Systems Investments, U.S. Federal Aviation Administration

"I've already made incredibly valuable adjustments to a project proposal – and the course isn't even over yet."

Gregory Shank, Walt Disney Imagineering Research and Development

"An excellently coordinated program with top-quality instructors, knowledgeable assistants and first rate materials."

James Laughlin, Vice President, Technology Services, Ocwen Technology Xchange

Registration

The registration fee for **Fundamentals of Finance for the Technical Executive** is \$2600 and includes continental breakfasts, luncheons, coffee, reception, and complete program materials. It does not include hotel accommodations.

**Return this form to Ms. Maureen Tracy, Center for Management Research,
55 William Street, Wellesley, MA 02481, or Call Ms. Tracy at (781) 239-1111, or**

FAX this form to (781) 239-1546. Confirmation will be made via mail.

Accommodations: We have reserved a block of rooms at a hotel convenient to the program site. Information on how you may arrange for accommodations will be sent to you approximately eight weeks prior to the program.

Certificates: Certificates of Participation will be awarded for completing the program.

Attendance Limitations & Liability: Attendance at all programs will be reserved on a first-come, first-served basis. If a session is canceled, MIT's liability is limited to the registration fee.

I wish to attend the following session of **Fundamentals of Finance for the Technical Executive** on:

[] December 12-13, 2002 [] March 17-18, 2003 [] July 15-16, 2003

Mr/Ms/Dr _____
(Please type or print clearly)

First name: on badge _____ on certificate _____

Title _____

Organization _____

Address _____

City _____ State/Country _____ Zip/Postal Code _____

Phone _____ **Fax** _____

E-mail _____

Team Registration: Others attending with me include:

Mr/Ms/Dr _____ Title _____

Mr/Ms/Dr _____ **Title** _____

To submit additional registrations, please copy this page. (Please note:

Check enclosed. Payable in U.S. dollars to CMR/F

Please bill me. Payment is expected prior

[] Confirming earlier registration by phone.
 [] I cannot attend on the dates listed but would like to be notified of future sessions of

this program (and the addition

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